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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,371	12/16/2003	Luc Struye	27500-GN02147	5374

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EXAMINER
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TANINGCO, MARCUS H

ART UNIT	PAPER NUMBER
2884	

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/737,371

Applicant(s)

STRUYE ET AL.

Examiner

Marcus H. Taningco

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/16/03, 11/21/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37-48, and 55-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 37-48 provides for the use of a data storage optical medium, but, since the claim does not set forth any steps involved, it is unclear what the applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 55-60 recite the limitation "a method of reading-out data inscribed in an optical memory plate" according to claim 4, 5, and 6, respectively. There is insufficient antecedent basis for this limitation in the claim. Claims 4, 5, and 6 recite a range of wavelengths utilized in a radiation inscription process and lack a method of reading out data.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-24 and 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Hell et al. (US 2001/0007352 A1).

Re claims 1 and 2, Hell et al. disclose an optical memory plate comprising a CsBr:Eu [0031] phosphor layer deposited [0020] on a glass substrate [0043], wherein said phosphor layer is substantially free of alkaline earth metals [0031-0035].

Re claim 3, Hell et al. disclose said phosphor layer is a binderless needle-shaped CsBr:Eu phosphor layer [0018].

Re claims 4-6, Hell et al. disclose said optical memory plate is used in an X-ray (less than 400 nm) recording system [0007].

Re claims 7-18, Hell et al. disclose an optical memory plate according to claims 1-6. Regarding the cited responsiveness upon irradiation with ultraviolet radiation, it has been held that when the structure recited in a reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01.

In this case, the structure in the reference is the same as that recited in the claims (i.e., europium doped...). As such, the low fluorescence efficiency in the blue light . . . is presumed to be an inherent property of the device.

Re claims 19-21, Hell et al. disclose an optical memory plate comprising a CsBr:Eu [0031] phosphor layer deposited [0020] on a glass substrate [0043].

Re claims 22-24, Hell et al. disclose a thin metal layer between said substrate and said phosphor layer [0044-0045].

Re claims 37-42 Hell et al. disclose the use of said optical memory plate for use in radiographic imaging systems [0007].

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 25-36, 43-51, and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hell et al. in view of Nakamura et al. (US 5,540,859).

Re claims 25-30, Hell et al. discloses the claimed invention, but lacks the ultraviolet transparent protective layer. Nevertheless, Nakamura et al. teach an ultraviolet transparent protective layer over-coated on a top layer of a phosphor layer (Col. 8, 43-47). It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Hell et al. with a protective layer to keep said phosphor layer from chemical deterioration or physical shock.

Re claims 31-36, Nakamura et al. teach an ultraviolet transparent protective layer overcoated on a top layer of a phosphor layer (Col. 8, 43-47). The use of quartz, a synthetic fused silica, sapphire, or  $\text{MgF}_2$  is viewed as a matter of routine design choice in view of the well-known ultraviolet transparency of such materials.

Re claims 43-48, Hell et al. disclose the use of said optical memory plate for use in radiographic imaging systems [0007].

Re claims 49-51, Hell et al. disclose a method of recording data in a memory plate, according to claims 1-6. Regarding the step of recording data with an ultraviolet radiation source such as a mercury vapor lamp, although not specifically disclosed, those skilled in the art appreciate such phosphor panels are responsive to ultraviolet radiation as evidenced by Nakamura et al. (US 5,540,859) in column 1, lines 41-52. Furthermore, ultraviolet sources such as a mercury vapor lamp are well known and is viewed as a matter of routine design choice dependent on its intended use.

Re claims 58-60, Hell et al. disclose the claimed invention but fail to specify using a longer wavelength range to read out data than to inscribe data. Nakamura et al. teach inscribing data using X-ray and reading out data using visible or infrared light. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Hell et al. since it was known to inscribe data using a shorter wavelength than when reading out data, which uses a longer wavelength.

Claims 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hell et al. in view of Akselrod et al. (US 2004/0159803 A1).

Re claims Hell et al. disclose exposing said phosphor panel with X-rays (having an energy in the range of 20 kVp up to 200 kVp), but fails to suggest the specified dose range. Akselrod et al. discloses an imaging apparatus comprising a phosphor plate exposed to X-ray with a dose within the specified range [0083]. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Hell et al. with the specified dose range in order to ensure maximum radiation absorption.

Claims 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hell et al.

Re claims 55 –57, Hell et al. disclose the claimed invention but fail to specify using the same wavelength to read-out data and to inscribe data. However, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Hell et al. in order to provide an apparatus using a single light source for convenience.

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## Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Comberg et al. (US 4,982,362) discloses an electron beam recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus H. Taningco whose telephone number is (571) 272-1848. The examiner can normally be reached on M - F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**ALBERT J. GAGLIARDI**  
**PRIMARY EXAMINER**

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